KATHOLIEKE
UNIVERSITEIT
LEUVEN

DEPARTEMENT TOEGEPASTE ECONOMISCHE WETENSCHAPPEN

RESEARCH REPORT 0222

EMPLOYEE OWNERSHIP AND ORGANISATIONAL SOCIAL CAPITAL: TWO CASE-STUDIES

by

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D/2002/2376/22

Employee ownership and organisational social capital
Two case-studies

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Abstract[1]

This paper studies the link between employee ownership schemes and social capital in the corporation. Several authors have argued that a personal initial financial investment is required for the full effects of employee ownership to be realised. Others claim that all employees of a corporation should be actually involved in employee ownership plans for the corporation to reap the full benefits of such plans. We use the concept of social capital to assess the respective merits of both options and to defend the claim that employee ownership plans that do not require an initial investment are the preferred option, at least when those plans are not restricted to managerial employees. The first section of this paper contains an introduction. In the second section, we analyse several models of the effects of employee ownership schemes upon satisfaction and profitability. We argue that the socio-dynamic effects of ownership outweigh other effects (e.g. the extrinsic motivation effects). That analysis allows us, in the third section, to identify the potential contribution of social capital. We suggest that social capital supports the socio-dynamic effects of ownership. Hence, we posit that social capital moderates the effects of employee ownership upon organisational performance. In the fourth and fifth sections, we conduct an explorative empirical test of that proposition through two case-studies in partly employee-owned small Belgian software corporations. We find support for the moderating role of social capital. However, the findings indicate that the ownership scheme itself has a significant impact upon the social capital in the firm. Collective ownership schemes (schemes that do not require individual investment) seem to increase the level of social capital and thereby have more positive effects on organisational performance than other ownership schemes.

Key words: employee ownership, social capital, participative management

[1] This research report is based on a text presented at the 25^{th} VWEC "Stakeholder synergy" in Hasselt on the 14^{th} of March 2002. We gratefully acknowledge the comments of Luk Bouckaert and other members of the VWEC commission on Business Ethics and Employee Participation. This paper also benefited from the questions raised by the participants in the VWEC. Remaining errors are our sole responsibility.

1. Introduction

For the last couple of years, financial participation has gained increasing attention from political leaders on the Belgian and European levels, because of its expected beneficial effects upon productivity, profitability and competitiveness. "Financial participation" basically refers to any system whereby the financial gains (or losses[2]) of a company are shared with its workers. Contrary to various bonus schemes, financial participation (1) has a lasting character; (2) involves at least a majority of workers and, in those cases where all workers are not involved, the group who benefits from the scheme must be defined with objective criteria (e.g. years of employment); (3) is tied to some measurable corporate performance index; and (4) is organised on the plant or corporation level (Uvalic, 1991).

One may distinguish two broad categories of financial participation: profit-sharing and employee ownership. This paper focuses on employee ownership. Employee ownership can be defined as any scheme giving the workers access to the capital of their corporation. This access can be given through debt (bonds or employee loans) or equity (ordinary shares, non-voting shares, stock options, warrants, convertible bonds).

Employee ownership schemes can be classified as either voluntary or not. Voluntary ownership plans, when they are accessible to the whole workforce, have the advantage of giving employees equal opportunities to buy shares or stock options, without compelling anyone to do so. The workers who eventually decide to step into voluntary schemes make a personal investment and can therefore be considered to be really interested by their participation in the capital of their company. This is not the case when schemes are not voluntary. In this second case shares are distributed for free to all the members of the organisation. Belgium has for instance an approved voluntary option scheme since 1999, but no approved non-voluntary options schemes. The 1999 law on options schemes requires the beneficiaries to pay an income tax on those options before they reach maturity. In effect, the beneficiaries thus have to pay for options that might not be used eventually.

Several authors (e.g. Long, 1978) have argued that a personal initial financial investment is required for the full expected effects of ownership to be realised. Others (e.g. Rosen, 2000), noting that a chain is only as strong as its weakest part, have relied on that analogy to claim that all employees of a corporation should be actually involved in employee ownership plans for the corporation to reap the full benefits of employee ownership.

[2] In the case of employee share-ownership, the employees share in the losses of the corporation in the sense that the value of their shares can drop sharply. One could argue that the value of the bonus (the shares) can drop to zero, but never be negative. This will be the case as long as financial participation does not undermine the base wage level; this condition is most often met (see Van Den Bulcke, 1999; Rosen, 2000). Moreover, most firms will set up financial participation schemes only when there is a profit to share with the employees. Hence, the possibility to share in the losses is in most cases a mere theoretical possibility.

Long provides an argument for voluntary schemes, while Rosen favours non-voluntary schemes[3] (indeed, he advocates the American ESOPs, where stock is owned collectively). Both claims are not incompatible: Long and Rosen would probably agree that the ideal situation is one in which all employees voluntarily enter an ownership scheme. In practice, however, this ideal situation is a very unlikely one, and when the management of a corporation wants to set up a plan, a choice must be made between a voluntary/individual and a non-voluntary/collective ownership plan. The choice must eventually be guided by the belief in the respective merits of these policy options.

In this paper we defend the claim that non-voluntary/collective plans should be preferred over voluntary/individual plans. Our arguments include an analysis of several predicted effects of employee ownership, and an empirical test of that analysis through two case-studies in small software companies. The core of the argument is, *on the one hand*, that socio-dynamic effects of ownership outweigh other effects of ownership (cognitive effects and extrinsic motivation), and *on the other hand*, that voluntary/individual plans communicate ethical values and result in partitions that weaken the positive socio-dynamic effects of ownership. The first point will be dealt with in §§ 2 and 3; the latter will be dealt with in § 5. § 4 is devoted to a summary of the methodology and results of the case-studies.

2. Financial participation: three models of its effects

Financial participation (hence ownership) may potentially affect many dimensions of an organisation. The largest body of literature, though, focuses on the impact of financial participation upon productivity, profitability, employee satisfaction and employment (Kruse & Blasi, 1995; Winther, 1995). In this paper, we will deal mainly with the effects of ownership upon satisfaction and profitability. Various models compete to explain these effects.

First of all, financial participation is claimed to have **individual** motivational effects: enhanced individual autonomy, link between individual and collective performance, goal acceptance, self-efficacy, decreased resistance to change, identification with the company, goal congruence, feelings of membership, satisfaction of individual ego, acquisition of new skills, heightened sense of responsibility, and so on.

Individual effects are explained by extrinsic and intrinsic motivation models. The extrinsic motivation model focuses on the positive impact of financial participation on employees' wealth. According to this model, financial participation will increase employees' satisfaction and commitment only when it generates substantial financial benefits (Klein, 1987; French, 1987). The increased satisfaction results from the higher income, while the increased commitment is a consequence of the capacity of financial participation to bring the employee's financial interests in line with managers' and shareholders', which leads the employees to act so as to maximise the financial performance of their firm.

[3] It is worth emphasising that "non-voluntary" does not imply that the scheme has been set up without the consent of a majority of employees.

The intrinsic motivation model focuses on the individual identification with the corporation (Klein, 1987; Pendleton et al., 1998). Financial participation is argued to foster ipso facto feelings of identification and harmony, because it nurtures a sense of familiarity with the corporation, particularly when financial participation involves employee ownership of the firm. This identification increases workers' feelings of integration (Argyris, 1964), membership and goal congruence (Long, 1978).

In addition to these merely individual effects, participation is said to induce **socio-dynamic** effects: enhanced information flows leading to better decisions, cooperation within the firm, group discipline and peer monitoring. Throughout this text, these effects will be referred to alternatively as socio-dynamic, collective or simply group effects of participation. The positive individual attitudes towards the firm listed in the previous paragraph (job satisfaction, membership, commitment, …) are assumed to increase individual motivation, understood as the desire to perform (Long, 1978). This desire will lead the individual not only to perform better herself, but also to monitor and facilitate her peers' performance, especially when the link between individual performance and organisational performance is tenuous (Fitzroy & Kraft, 1987). Such peer monitoring may be even more effective than hierarchical control (Bernstein, 1979).

Individual and group effects, e.g. identification, membership feelings and peer monitoring, may occur if only part of the workforce actually participates financially. However, motivational effects (with the exception of the satisfaction of ego needs) will be stronger when the formal and informal environments are congruent (Argyris, 1957), i.e. when co-workers share similar values (Locke et al., 1986). The more employees share similar values, the better. Therefore, to the extent that participation signals particular values, these motivational effects (again, with the exception of the satisfaction of ego needs) will be stronger not only when everyone is eligible to the financial participation schemes, but more so when everyone is actually involved with it – when financial participation extends to all members of the organisation (or to all members of a division in a multi-divisional firm).

A third category of effects is **indirect.** Proponents of the indirect model suggest that financial participation can have a lasting impact on employee attitudes only when it leads to greater participation in decision-making[4] (Long, 1978; Tannenbaum, 1983; Buchko, 1992; Florkowski & Schuster, 1992). There exists strong empirical support for this model (Buchko, 1992; Keef 1998; Long, 1978; Klein, 1987; Rosen & Quarrey, 1987; Pepper 2; Poole & Jenkins, 1990, Hammer et al., 1982). Participation in decision-making in turn triggers a series of both individual and collective effects.[5]

[4] Participation in decision-making is abbreviated in this text as PDM. We may distinguish between participation in operational decisions (operational PDM), participation in decisions about personnel issues (personnel PDM) and participation about strategic decisions (strategic PDM).

[5] Throughout this text, "participation" refers to both "financial participation" and "participation in decision-making". Because of our focus on employee ownership, as opposed to profit sharing, "ownership" will be used alternatively with "financial participation".

On the level of the organisation, socio-dynamic effects of ownership (and participation in decision-making) are much more important than individual effects. In anything but very small organisations, individual workers, especially on the work floor level, are quite unlikely to have any significant impact upon organisational performance. The aggregated impact of each worker's individual motivation may make a difference, but the different jobs, hence the workers' levels of motivation are increasingly interdependent, especially in service corporations operating in dynamic sectors. Consequently, effective collective functioning entails more than the sum of effective individual work efforts. This means that a group's ability to organise smooth cooperation between its members will mediate in important ways the aggregated impact of participation. Considering that a key socio-dynamic effect of ownership is precisely to foster horizontal cooperation, it is fair to say that, except maybe at the top of the organisation, the socio-dynamic effects of participation are likely to be prevalent.

Horizontal and vertical cooperation among and between employees and managers may be one of the most important aspects of organisational socio-dynamics from the point of view of the organisation itself. Cooperation is an all-encompassing catch-word, which may include respect of the hierarchy and formal procedures, industrial relations, open communication, the collectivistic orientation, or simply a good atmosphere among colleagues (Cludts, 2000). In that sense, cooperation is a vague concept and it is trivial to say that cooperation is important in organisations. However, cooperation may also be understood as a mindset: the willingness to forego immediate personal advantage in order to facilitate joint decisions and actions (Sugden 1987, 1993). Recent developments of agency theory and contract theory have shown how much corporations can be damaged when their members do not apply these basic principles of cooperation.

The level of cooperation within a firm depends on many other factors than ownership and participation. Therefore, if the primary impact of ownership is socio-dynamic, we need to study the other organisational factors that influence the socio-dynamics of the firm in order to assess the impact of ownership upon organisational performance. In this text, we want to emphasise the role of social capital.

3. Organisational social capital and socio-dynamic effects of ownership

Loury (1977) was one of the first authors to introduce the term "social capital". He used that term to name the resources that are available to an individual through her personal network of relationships. From his interest in child development, Loury had primarily family relationships and primary communities in mind (schools, etc.). His work lied in the same line as Granovetter's (1973). Granovetter emphasised the importance of personal relationship networks for the career prospects of individuals. He argued that personal relationships give access to information that can provide a "competitive" advantage to its owner in the race for promotion. Later Bourdieu (1992) referred to social capital as "the sum of the resources (...) that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalised relationships of mutual acquaintance and recognition" (Bourdieu, 1992: 119).

Those three authors conceptualise social capital as an individual resource (a "private good") that yields private benefits to its possessor. The concept of social capital has however become a widespread concept only since the publication of Putnam's (1993) study of the regional economic development in Italy. Putnam defines social capital as "features of social organisation, such as trust, norms, and networks, that can improve the efficiency of society by facilitating coordinated action" (Putnam, 1993: 167).

Putnam's view on social capital differs in at least one important respect from Loury's and Bourdieu's. According to Putnam, the primary benefits of social capital accrue to the community rather than to the individual. The community can be a region, as in his original study, a country (Fukuyama, 1995; Putnam, 1995) or a corporation (Baker, 1990). Putnam conceptualises social capital as a "public good". When the organisation is taken as the unit and focus of analysis, these "public good" aspects of social capital are more important than the "private good" aspects. The relevant questions are whether organisational social capital can enhance organisational performance on the one hand, and what organisational practices can foster the development of organisational social capital on the other hand.

Following up on the organisational literature (Leana & Van Buren, 1999; Nahapiet & Ghoshal, 1998; Burt, 1995), we suggest the following definition of organisational social capital: *the resources, embedded in personal relationships, which facilitate successful collective action within the organisation. Those resources include a culture of communication, shared norms of trust and reciprocity, commitment to the common organisational goals and shared value systems.* We distinguish two dimensions of organisational social capital: on the one hand the relational dimension, which refers to social interaction, face-to-face contact and the quality of interpersonal communication; on the other hand the attitudinal dimension, including such things as shared trust, norms and values. A third dimension, namely a cognitive dimension, is sometimes distinguished (Nahapiet & Ghoshal, 1998). We do not investigate that dimension of social capital in this text because it partly coincides with the extrinsic effects of employee ownership.

The question to be dealt with here is the role of organisational social capital as a moderator of the effects of ownership. We will briefly come back to the (reverse) effect of ownership upon organisational social capital in the fourth section of this paper. For the time being, we summarise the two main reasons why organisational social capital is relevant to a full-fledged study of participation.[6]

[6] Throughout the rest of this text, "organisational social capital" will be abbreviated alternatively as "social capital" and as "OSC".

3.1. Organisational social capital as shared values

Ownership is often (see e.g. Poole & Jenkins, 1990: 22) assumed to generate ipso facto "intrinsic" commitment. It is typical of the largest part of research on participation that the mechanisms by which participation generates "intrinsic" commitment have not been studied carefully.[7] Though some of those mechanisms may be self-evident (e.g. psychologists have known for a long time that power is intrinsically rewarding), others may suffer from a lack of attention. What does it really mean to say that "participation makes employees feel part of an organisation", or that "participation increases the sense of respect between management and workforce"? We suggest that one of the mechanisms generating "intrinsic" commitment through participation is the existence of shared values between employees and managers.

Poole & Jenkins (1990) have already devoted some attention to the role of values in the context of ownership. They have stressed "the importance of management's *philosophical commitment* to share ownership in significantly enhancing the effects of profit-sharing and share-ownership schemes with regard to employee involvement and commitment to the company. Moreover," they continue, "the effectiveness of profit-sharing and share-ownership schemes may have more to do with *managerial philosophy* and style than with the level of share ownership." (Poole & Jenkins, 1990: 15, emphasis added) They add that "the considerable importance attached to 'high trust' between management and the workforce is particularly noteworthy" in those companies with profit-sharing (Poole & Jenkins, 1990: 64). Indeed, profit-*sharing* signals the existence of a *shared* philosophical commitment that is conducive to trust and cooperation. We submit that the concept of social capital is useful to conceptualise and contextualise the idea of shared values in relation with other elements of work life.

3.2. Organisational social capital as lubricant of coordination and cooperation mechanisms

There is yet another reason to believe that social capital can help us to better understand the effects of ownership. It is fairly straightforward to say that profit-sharing and ownership make employees more "profit-conscious". But how does that consciousness translate into higher productivity? Not immediately through motivation and commitment, but rather through better functioning in the organisation (which is of course *supported* by motivation and commitment). What does a good functioning in the organisation entail? Primarily, since this is the core of any organisation, good coordination and good cooperation. But to *acknowledge* that these are essential drivers of organisational success is not enough to *realise* these. An additional ingredient of efficient organisational functioning is the *ability* to cooperate – and this is the field in which social capital can make a contribution.

This allows us to formulate research propositions in the next two paragraphs.

[7] We put "intrinsic" between quotation marks because we suspect the word "intrinsic" to be used to mask the ignorance of what happens in the "black box" mind of employees.

3.3. Ownership and the relational dimension of organisational social capital

The relational dimension of social capital includes social interaction, face-to-face contact and the quality of interpersonal communication within the firm. Obviously, interpersonal contact and communication are essential for information exchange, joint decision-making, peer monitoring, and many other activities that have been proposed as essential mechanisms whereby ownership contributes to organisational performance. Though participation may foster the development of intense communication within the firm, we may expect that the effects of ownership will also depend on the communication culture and patterns which are already present when participation is introduced. Since such things as a firm's communication culture and pattern do not change overnight, we may even expect these factors to have a lasting effect on the impact of ownership. Hence we can develop our first proposition:

> <u>Proposition 1:</u> The relational dimension of organisational social capital, conceptualised as social interaction, face-to-face contact and the quality of interpersonal communication within the firm, moderates the effect of employee ownership upon organisational performance.

We will not expand further on communication, for its role and importance have already attracted much attention (Long, 1978). Instead, we turn now to the attitudinal dimension of social capital.

3.4. Ownership and the attitudinal dimension of organisational social capital

Trust, collectivism, goal congruence, cooperation and shared values have been argued above to be important success factors of participation. These are essentially values, and correspond to the attitudinal dimension of social capital. Employee ownership and profit-sharing may signal particular managerial values and thus reinforce employee commitment (see above: Poole & Jenkins, 1990) but a broader ethical commitment can reinforce those effects of financial participation upon trust and cooperation. Pérotin & Robinson (2000) e.g. have been able to demonstrate the significantly positive interaction effect existing between participation on the one hand and equal opportunities policies on the other hand. Building on their insight, we want to explore the importance not only of managers' values, but also of the values shared between management and employees. The communication of managers' philosophical commitment and their perception by the employees may also influence the development of social capital.

The relevance of philosophical commitment and shared values is not anectodical. Quite the contrary, they are key elements of corporate culture (Key, 1999) and necessary building blocks of trust, cooperation, personal identification with the corporation, commitment and personal development, which are essential determinants of organisational performance (Argyris, 1957; Collier & Esteban, 2000; Flores & Solomon, 1998), also in participative organisations. Hence we can develop our second proposition:

> <u>Proposition 2:</u> The attitudinal dimension of organisational social capital, conceptualised as shared trust, norms and values, moderates the effect of employee ownership upon organisational performance.

Figure 1 summarises these two propositions graphically:

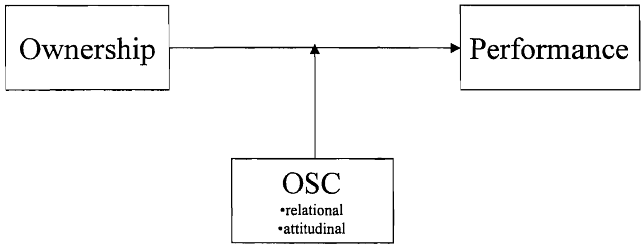

Figure 1: The moderating role of OSC.

Obviously, these two propositions do not aim to overthrow extant theories: the motivational effects of PDM e.g. have been ascertained by generations of psychologists and organisation scholars, and OSC does not provide any concept of motivation that would be more accurate than existing concepts. An OSC-based theory of participation should rather be complementary. Just as the motivational and socio-dynamic theories of PDM provide complementary insights, we expect that OSC would add up yet another insight in the mechanisms underlying employee ownership. That additional insight focuses on attitudes and values, in particular attitudes towards cooperation and values fostering collective action. This would add up to the growing but heretofore separate streams of literature which present participation and ethics as strategic management variables (e.g. Lawler, 1986; Pruzan & Thyssen, 1990).

3.5. Interdependence between the different components of OSC

OSC is not a monolithical concept: its different elements have different antecedents, may stabilise at differing levels and influence one another in a dynamic fashion. Tsai & Ghoshal (1998) have empirically explored the interdependence between different components of social capital in the context of a multi-unit corporation. As they expected, they found significant relationships between the constructs of trust, social interaction and shared values.

We are very aware that strong correlations are also expected between the different scales we have used to conduct our case studies. We also expect social capital to have a direct impact upon organisational performance: though OSC mediates the effects of participation, we firmly believe that OSC is an important resource in most corporations, including non-participative ones. We finally expect organisational performance to have a definite impact upon the level of OSC: the fact that cooperation and shared values are more likely to be found in healthy organisations than in corporations on the brink of bankruptcy, does not need lengthy explanations.

These considerations lead us to formulate two additional propositions:

> Proposition 3: The relational and attitudinal dimensions of organisational social capital, though distinct, mutually influence each other.
>
> Proposition 4: Organisational social capital is a direct determinant of organisational performance (satisfaction and profitability). In turn, organisational performance feeds back to organisational social capital.

These last two propositions will not as such be verified empirically in our case-studies. However, they are mentioned here in order to make explicit the complexity of the research object. That complexity will lead us to contextualise our findings. In order to sketch a full model, we also include managerial philosophical commitment into the picture. We clearly do not wish to study such an intangible concept, and this is the reason why the arrows linking managerial philosophical commitment with other concepts in figure 2 are dashed. It is nevertheless important to place it in the picture, since this commitment has been claimed to moderate the effects of participation in important ways (Poole & Jenkins, 1990). In our scheme, the impact of managerial philosophical commitment goes through the organisation's social capital. Eventually, we recognise that since formal ownership may reflect a particular managerial philosophical commitment, it may also have a direct impact upon social capital.

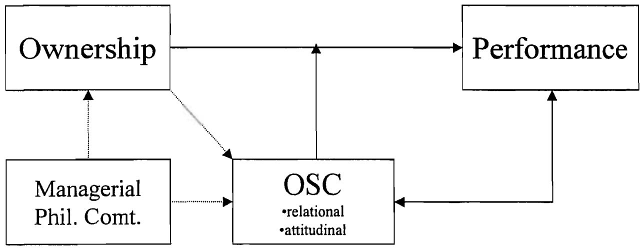

Figure 2. Relationships between Organisational Social Capital and organisational performance.

4. Method and key facts of the case-studies in two small software corporations

We tested the validity of our first two propositions through case-studies. The primary reason to choose the case-study method was the explorative nature of our research. Though we have been able to formulate some propositions based on theory, the lack of empirical research in this field warrants such qualitative research in order to better understand the mechanisms at play, and to uncover related hypotheses that could be tested quantitatively at a later stage. Several additional reasons supported this methodological choice. First, no study has attempted, to our knowledge, to measure OSC on the grounds of data gathered from individual organisation members. This means that our measure instruments were tentative, and case-studies offer good possibilities to assess the validity of measure instruments, by comparing quantitative data with interview data. Secondly, many relevant organisational and individual characteristics are not pictured in our simple model, for instance the cultural background of the employees and the charisma of the managers. Case-studies allow us to take those missing elements into account in ways that are impracticable with merely quantitative analysis. Thirdly, the direction of causalities is very difficult to establish with non-longitudinal quantitative data. Since we have not been able to conduct longitudinal research, we have opted for the case methodology, which allows us to hear from the people involved their opinion about causality. Fourthly, participation depends to a large extent on the institutional environment: culture, labour legislation, fiscal legislation, development of the stock markets, etc. In order to keep the complexity within bounds it was decided to conduct our study within Belgium only. The small number of Belgian firms having set up significant participation schemes made it impossible to draw a sample large enough to conduct a large-scale quantitative survey.

In this paper, we report the findings from two partly employee-owned small software corporations. Both corporations are Belgian, have the same NACE-BEL classification code 721 and the same sectoral industrial bargaining committee number 218. One corporation, CPX, is established in Flanders, while the other corporation, NSI, is established in Wallonia. None is publicly traded.

CPX employs 65 people, 3 of which sit in the board of management. In addition, CPX has three subsidiaries (in the Netherlands, Germany and the US) totalling about 35 employees. NSI employs 67 people, 7 of which sit in the executive board. NSI has recently taken over another small Walloon software company employing an additional 20 people. Employees in both firms (self-reportedly) enjoy some decision-making power regarding operational (job-related) decisions, and very little regarding strategic (organisation-level) decisions. Participation in decision-making in both firms is very similar and mostly informal: managers apply an open-doors policy which functions thanks to the small size of the organisation. Employees have yearly appraisal interviews with the management, which are also an opportunity for the employees to raise problematic issues and to make suggestions regarding the conduct of the corporation. Finally, both corporations organise regular personnel meetings in order to inform the employees about figures and tactical and strategic developments. During these meetings, employees also have the opportunity to raise questions. These meetings are quarterly at NSI, they were quarterly at CPX until 1999, and have been held monthly since then. There are no other formal (joint) committees involving "work floor" employees, most likely because of the small size of both corporations.

Project and/or team leaders are regularly consulted by the management. Formal decision-making power rests entirely within the hands of the top-managers, i.e. 3 people at CPX and 1 person at NSI. NSI's turnover increased from 3.8 to 5.7 million euros between 1995 and 1999, with a net profit rising from 0.16 to 0.28 million euros. Over the same period, CPX's turnover went up from 4.6 to 6.7 million euros, and its net profit increased from 0.07 to 0.15 million euros.

This short description shows that in many respects, these corporations are very similar. The most significant difference is their ownership schemes. 86% of the capital of CPX is owned by its employees, but the stakes are highly unequal: two of the three managers (the founders of the corporation) own together 76%, the third manager and four other senior employees own together 6%, and 4% of the capital has recently been offered for sale to the other employees through an approved option-scheme coupled to a capital increase. The remaining 13% are held by a venture capitalist. In contrast, managers and employees of NSI own "only" 51% of the shares, but these are more equally spread: the management owns 31% and other employees jointly own 20% of the shares. The remaining 49% are held by external investors: a multinational computer corporation and a regional investment fund.

Next to their different ownership schemes, the main differences between both corporations may reasonably be attributed to their corporate history and culture; these are partly reflected in their OSC. We measured organisational performance and social capital with a written questionnaire that was been distributed to all non-executive employees of both firms.[8] 60 questionnaires were distributed in NSI, and 30 were returned (50%). 55 questionnaires were distributed in CPX, and 37 returned (67%). The questionnaire contained several scales. Summary information about the scales used can be found in Appendix 1. Those scales may be grouped as follows:

Table 1: Scales used in the questionnaire, and their structure[9]

Vertical communication Horizontal communication Openness	Relational OSC
Vertical trust Horizontal trust Generalised trust	Attitudinal OSC
Ethical climates Collectivism Congruence	
Participation in DM Autonomy	PDM
Job satisfaction Commitment	Performance

[8] Data about financial participation and financial performance were gathered in the corporation's accounts and internal documentation, and through interviews with the managers.

[9] The detailed list of questions is shown in Appendix 4, as well as the reliability scores. All but three reliability scores are above 0.8, the three others are still above 0.75.

The "ethical climates" scale includes four subscales measuring caring (C), deontological/regulative (R), instrumental (S) and independent (D) ethical climates. The ethical climate is not homogeneous in either of the two firms. In both firms, the four different ethical climates are present, though to different extents. It also appeared that there was a clear pattern of correlations between the different climates:

Table 2: Ethical climates: Pearson correlations and significance levels (N=65)

	ECQR	ECQD	ECQS
ECQD	**-0,309** **0,013**	1,000 ,	
ECQS	-0,058 0,650	-0,002 0,987	1,000 ,
ECQC	**0,332** **0,007**	-0,060 0,639	**-0,455** **0,000**

This indicates that there is a variety of ethical orientations among our respondents: one combines caring and deontological thinking, the other is more independent minded, and the third one more instrumental. A cluster analysis conducted on this sample allowed us to identify three clusters characterised indeed by different scores on those ethical climates subscales (see Appendix 2). The different climates have significantly different correlations with other scales, which are not discussed further in this paper, like fairness and external ethics. A consistent pattern emerges: correlations are strongly positive with caring and deontological climates, neutral with independent climate and strongly negative with instrumental climate subscales. This lead us to select the caring and deontological ethical climates scales as reliable indicators of the general ethical climate of a corporation and of the existence of shared values. The instrumental climate may be considered as another reliable indicator of the attitudinal dimension of OSC, when it is reverse-scored. In contrast, the independent ethical climate scale will not be considered in further analyses. Our initial model, completed with all scales and subscales used, summarises graphically the theoretical framework that we have used to conduct our case studies.

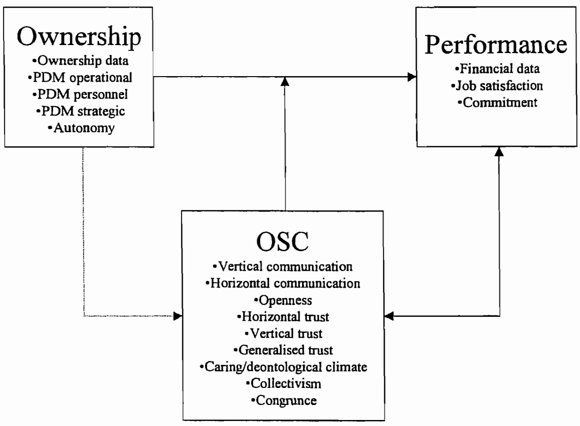

Figure 3: Model for the case-studies.

5. Findings from the case-studies

5.1. Ownership in both firms

We have already highlighted the ownership structure of both firms in § 4. Though external shareholders own a larger share of the stock of NSI than of CPX, the non-managerial employees of NSI collectively own 20% while the non-managerial employees of CPX own only 5% of their firm. The consequence is that CPX managers have absolute power as shareholders and directors, while the management of NSI has to form a coalition with either the external shareholders or the employees in order to have a majority of the votes on the general assembly. In addition, the management of NSI has two seats out of five in the board of directors, while the employees have one, with the consequence that the management has to form a coalition on that level too. In practice, most decisions are taken after reaching a consensus with the different parties, but in case of disagreement the management is strongly committed to form a coalition with the employees in order to keep decision-making power inside NSI. In contrast with NSI, none of the non-managerial employees are associated with strategic decisions at CPX, and the management is not committed to participative decision-making at strategic level.

Despite that, the perceived opportunities to participate in strategic decisions are similar and quite low in both firms (scores of 2.433 and 2.676).[10] The perceived opportunities to participate in operational decisions are also similar, though higher, in both firms (scores of 3.973 and 3.733). The autonomy scores are somewhat higher, and also very similar between the two firms (scores of 4.559 and 4.644). We observe a larger difference regarding the perceived opportunities to participate in personnel decisions: 4.622 at CPX vs. 2.100 at NSI.

5.2. Organisational social capital in both firms

All our indicators of social capital, both relational and attitudinal, are consistently higher at CPX than at NSI. The average difference (in favour of CPX) is 0.708 (on a 7-points scale), with a standard deviation of 0.347 and values ranging from 0.159 (collectivism scale) to 1.326 (vertical trust scale) (see Appendix 1).

5.3 Performance in both firms

As already indicated in § 4, the financial performance of both firms is quite comparable, both in absolute and relative terms. Over the last 5 years, NSI's turnover increased by 57% and CPX's by 45%, though CPX's turnover in 1999 is still 16% higher than NSI's. This difference is to a large extent explained by the slightly different size of both corporations. Indeed, when we compare the value added per employee in each firm in 1999, we find 65.150 euros at CPX and 65.700 euros at NSI. The difference is negligible.

[10] Unless stated otherwise, all scores are measured on a 7-points Likert-type scale going from 1 (very low) to 7 (very high).

What about non-financial performance? The respective average job satisfaction scores at CPX and NSI are 4.865 and 4.633; the respective commitment scores are 4.532 and 4.317. The differences between both firms do not appear to be significant.

5.4. Empirical test of the propositions

It is obviously impossible to "test" propositions in a statistically valid sense with two cases only. However, we observed that formal ownership is much stronger at NSI, in the sense that employees possess a much higher share of the equity, but OSC is markedly higher at CPX, and the performance of both firms is similar by all the accounts we have presented here. These findings support our first two propositions: stronger ownership does not lead to stronger effects when the level of social capital is low in the firm.

However, these case-studies aim not only at studying the plausibility of different mechanisms, but also at uncovering new ones, that could be tested with further research. During the research, we were struck by the low level of social capital at NSI, despite the fact that the management was genuinely committed to the well-being of its employees. Moreover, NSI is the "product" of an employee buy-out conducted eight years ago. We expected that to lead to the emergence of strong group feelings, but we did not measure those. The search for a satisfactory explanation to this puzzle lead us to uncover the relation between the collective nature of the scheme and its impact upon social capital.

Firstly, we thought that we could have badly operationalised the concept of social capital. Some of the indicators we have used to measure OSC were already validated but a number of them were developed for this study. Some of them might have low validity, but the remarkable convergence between all OSC indicators used in this study discards the thought that a poor operationalisation might have significantly affected our results. This convergence is additionally supported by an exploratory factor analysis run on the scales used to measure OSC. Our initial expectation, based on social capital theory, was that two distinct relational and attitudinal dimensions would come out of the analysis. However, contrary to that expectation, one single overwhelming factor emerged (see Appendix 3). This result raises new questions about the distinction between the different components of OSC but discards doubts about the consistence of our measure instruments.

Interviews with managers and employees of both corporations provided a clue to this puzzle. One indicator that was not included in our OSC indicators was a measure instrument of reciprocity – for a lack of adequate measure instrument. The concept of fairness, which is closely related to the idea of reciprocity, proved nevertheless to be the key to a better understanding of the mechanisms underlying ownership.

Though employees at NSI own collectively 20% of the shares, these shares are owned by approximately 60% of the employees, while the remaining 40% did not have the opportunity to buy any. This situation has an historical explanation: when NSI was founded as a spin-off from an existing (larger) company, its employees were required to invest some money in NSI. As NSI grew, it needed to recruit new employees, but not to increase its capital, with the consequence that no shares were offered to those new employees. This results in the present inequality between "ancient" and "new" employees. In contrast, at CPX, the management owns an overwhelming majority of shares, and non-managerial employees have the chance to buy only a fraction of the capital, but all employees have access to those shares, to an extent which is proportionate to their functional level.

An analysis of the questionnaires gathered confirms this intuition. At CPX, the lower satisfaction level of a relatively large group of employees is explained mainly by their rejection of the regulative climate, paperwork and lengthy procedures. Their rating of ethics and fairness, though slightly lower, does not differ significantly from the ratings of the more satisfied employees. At NSI, in contrast, we see that the less satisfied employees do not differ from the more satisfied in their appraisal of the regulative climate, but rate ethics and fairness much lower, and point at self-interested behaviour among their colleagues as being problematic. What's more, this group of less satisfied employees is larger at NSI than at CPX (40% at the former, compared with 30% at the latter), and gathers at NSI a majority of younger employees who have no or just a few shares, while the more satisfied tend to be older employees who own several shares. We have also observed that the more satisfied employees of NSI are more satisfied and more positive about their firm than their counterparts at CPX. They also indicate a higher level of OSC. On the contrary, the less satisfied employees of NSI are less positive over their firm than their counterparts at CPX, and indicate lower levels of OSC. To put it bluntly: the gap between more and less satisfied employees is larger at NSI.

The beneficial influence of OSC on one half of the workforce of NSI (the more satisfied) may counterbalance the negative influence of low levels of OSC of the other half of its employees (the less satisfied). The net effect of those opposed trends could explain why the performances of NSI and CPX are comparable, despite the dramatically lower level of OSC at NSI. Indeed, the more motivated and satisfied part of the workforce at NSI is the "oldest", hence the most powerful in the organisation, through classical mechanisms of tenure-related promotions. Nevertheless, this situation is likely to change in the medium term, as the company continues to grow and to recruit new employees

It is interesting to note that though the high level of inequality between employees and managers at CPX does not seem to be a problem, the *objectively smaller* degree of inequality between managers and employees at NSI is. Though our case-studies do not allow us to test strictly the claim that voluntary/individual plans communicate ethical values and result in partitions that weaken the positive socio-dynamic effects of ownership, we found that the nature of the plan indeed signals a particular managerial commitment to either spread ownership broadly or not. It is absolutely clear that this signal has a definite impact upon OSC and socio-dynamics in the firm.

Our main conclusion is that though the management's philosophical commitment may have a direct impact upon OSC, we have found in these cases that *formal* ownership arrangements are interpreted as signalling managerial commitment to participation, and that those signals are much more important than other *informal* expressions of that commitment, such as informal participation in decision-making. This calls for careful consideration of formal structures as a determinant of expectations and attitudes, regardless of the leadership style which is adopted by the management.

A second finding is that, though the ethical climate depends (in these small organisations) to a large extent upon the attitudes of the management, the respondents were perfectly able to make a distinction between the quality of vertical and horizontal relationships. When "horizontal" and "vertical" variables are separated, we observe that the average scores of the "horizontal" factor differ much less (across both firms) than the average scores of the "vertical" variables. This gap between horizontal and vertical dimensions of OSC can be interpreted as signalling particular expectations with regard to participation. There is indeed an argument saying that the more people experience participation, the more they wish to participate (Pateman, 1970). Our findings lend support to that argument: employees of CPX have never been offered decision-making power on strategic level, and do not expect to have any. They feel that managers are competent, and trust them. In contrast, the employees of NSI know that they hold collectively an important share of the capital, and they are often consulted by the management before taking important decisions. Nevertheless, they do not experience many formal opportunities to participate in decision-making at strategic level, hence their frustration towards the management which is thought to monopolise power, even if it is not less competent than CPX's management. This calls for further theoretical refinement of the social capital concept. The need for such theoretical refinement is emphasised by the fact that we were not able to observe two components of OSC distinguished by theory, *in casu* an attitudinal and a relational component. Our study suggests in particular that horizontal and vertical dimensions of OSC could be defined and measured separately.

A third lesson to be drawn is that OSC may very well moderate the impact of ownership, but that the indicators used to measure OSC should definitely include some measure of reciprocity or justice.

A last lesson concerns the "homogeneity" of the workforce. We initially hoped to capture that homogeneity by comparing homogeneous ethical climates in different organisations, but that attempt proved unsuccessful. Our findings show nonetheless that an adequate measure of homogeneity would provide very important information about OSC in a particular firm; there is a need of adequate measure instruments.

6. Conclusion

Our initial claim is that voluntary/individual ownership plans communicate ethical values and result in partitions that weaken the positive socio-dynamic effects of ownership. Our case-studies do not allow us to test rigorously that claim. At NSI, the scheme was not really voluntary, yet only half of the workforce is currently involved. At CPX, the scheme is voluntary and most employees, though not all of them, decided to step in. It is nonetheless very clear that the nature of the plan signals a particular managerial commitment to spread ownership broadly or not. This signal has a definite impact upon OSC and socio-dynamics in the firm. Though the managerial philosophical commitment may have a direct impact upon OSC, we have found in these cases that *formal* ownership arrangements are interpreted as signalling managerial commitment, and that those signals are more important than other *informal* expressions of that commitment. Though two cases cannot provide compelling evidence of general mechanisms, these case-studies have brought insight into an as yet undocumented signalling mechanism, which could be tested more extensively with further research.

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APPENDIX 1: DESCRIPTIVE STATISTICS OF THE SCALES

		NSI		CPX	
		Mean	SE Mean	Mean	SE Mean
Vertical communication	VCO	3,650	0,312	4,748	0,238
Horizontal communication	HCO	5,345	0,307	5,784	0,194
Openness	PAR	4,267	0,268	4,928	0,190
Vertical trust	VTR	3,467	0,309	4,793	0,212
Horizontal trust	HTR	4,317	0,225	4,809	0,217
Generalised trust	GTR	5,000	0,249	5,811	0,189
Deontological climate	ECQR	2,747	0,231	3,704	0,210
Instrumental climate	ECQS	4,214	0,236	3,361	0,201
Caring climate	ECQC	2,922	0,251	3,583	0,162
Independent climate	ECQD	4.274	0.262	3.861	0.235
Collectivism	COLL	5,625	0,183	5,784	0,139
Congruence	CON	3,900	0,300	4,378	0,197
PDM - operational	PDM1	3,733	0,352	3,973	0,289
PDM - welfare	PDM2	2,100	0,277	4,622	0,286
PDM - strategic	PDM3	2,433	0,317	2,676	0,288
Autonomy	AUT	4,644	0,320	4,559	0,222
Satisfaction	SAT	4,633	0,258	4,865	0,186
Affective commitment	CMTA	4,317	0,296	4,532	0,239
Moral commitment	CMTM	2,922	0,324	2,468	0,213

APPENDIX 2: CLUSTER ANALYSIS

Final Cluster Centres

	Cluster		
	1	2	3
ECQC	3,93	3,38	2,16
ECQS	3,13	3,71	4,69
ECQD	4,44	3,61	4,08
ECQR	2,73	4,56	2,21
SAT	5,56	4,79	3,42

ANOVA

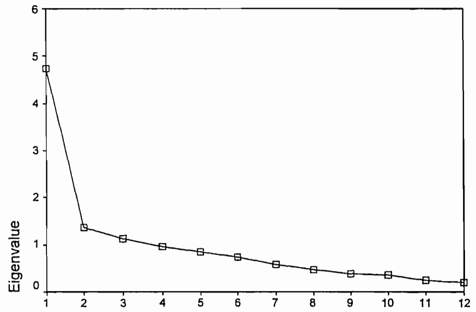
	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
ECQC	15,490	2	,971	62	15,960	,000
ECQS	11,732	2	1,328	61	8,833	,000
ECQD	4,185	2	1,111	61	3,769	,029
ECQR	32,448	2	,783	62	41,424	,000
SAT	22,851	2	,924	64	24,727	,000

Note: The F tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.

Number of Cases in each Cluster

Cluster	1	26
	2	25
	3	16
Valid		67
Missing		0

APPENDIX 3: FACTOR ANALYSIS OF OSC SCALES



Component Matrix

	Unrotated Components		Rotated Components	
	1	2	1	2
ECQR	,434	-,645	,550	-,550
ECQS	-,638	,017	-,630	-,105
ECQC	,705	-,156	,722	-,018
ECQD	,067	,630	-,055	,631
CON	,608	-,174	,630	-,055
COLL	,339	,503	,236	,558
VTR	,847	-,158	,862	-,007
HTR	,606	,076	,580	,191
GTR	,615	,356	,535	,468
PAR	,842	,033	,820	,195
VCO	,831	,027	,821	,133
HCO	,553	,286	,488	,387

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 3 iterations.

Note: These are the results of a factor analysis that was conducted on a larger population (N=288) in order to enhance its significance; the results of the same factor analysis conducted in the two firms considered in this paper were very similar.

APPENDIX 4: COMPOSITION OF THE SCALES

We have relied whenever possible on existing scales with known reliabilities. Unless otherwise indicated, all scales are Likert-scales with 7 answer possibilities ranging from "strongly disagree" through "neutral" to "strongly agree". Reliabilities have been assessed with Cronbach's standardised item alpha (α). The reliabilities were computed using a sample of 288 respondents. Items marked (R) are reverse-scored.

The scales appear hereunder in the same order as in Appendix 1.

Communication

The length of the scales was an important issue of concern, as our eventual questionnaire included about 130 items printed on 6 pages. This concern lead us for instance to reject longer communication scales (see e.g. Mohr & Spekman, 1994 and Whitener et al., 1998. We have included a short scale adapted from Ruppel & Harrington (2000). This scale contains one item for horizontal communication and three items for vertical communication.

Horizontal communication

1. Employees in this firm communicate easily and freely with each other.

Vertical communication

1. Employees in this firm communicate easily and freely with managers.
2. Managers in this firm communicate easily and freely with employees.
3. There exists a culture of open communication in this firm.

The reliability for this scale is 0.8959.

Openness (participative climate)

We have grouped ten items drawn from various sources under one heading in order to make a general assessment of the participative climate. Factor analysis indicated that the main factor included only the five following items.

1. Differing opinions may be expressed and discussed openly.
2. Problems and concerns may be voiced and discussed openly.
3. This company is open to new ideas for improvement.
4. Suggestions made by employees are taken into account.
5. My company encourages me to express ideas, opinions and suggestions.

Reliability analysis confirmed that the scale composed of those 5-items has a very satisfactory reliability level: 0.909.

Trust

Our measure instruments were adapted from Mohr & Spekman (1994) and from Tsai & Goshal (1998). Therefore, previous reliability estimates were not available. However, they proved to be very satisfactory.

Vertical trust (trust in top managers)

1. I trust that the top managers' decisions will be beneficial to us as employees.
2. I feel that we do not get a fair deal from these top managers (R).
3. Our relationship with top managers is marked by a high degree of harmony.
4. I can rely on top managers that they will not take advantage of us even if the opportunity arises.

Cronbach's alpha for this particular scale is 0.8737.

Horizontal trust (trust in colleagues)

This scale is *mutatis mutandis* an exact replication of the previous scale. Its reliability is very comparable: 0.8805.

1. I trust that the my colleagues' decisions will be beneficial to me.
2. I feel that I do not get a fair deal from my colleagues (R).
3. My relationship with my colleagues is marked by a high degree of harmony.
4. I can rely on my colleagues that they will not take advantage of me even if the opportunity arises.

Generalised trust

We have included one question about generalised trust, because it has been a key feature of the sociological social capital construct. The use of a single question about generalised trust is accepted practice because the operationalisation of that concept has not yet been settled (Stolle, 1999). The item was the following:

1. Most people who work in this company can be trusted.

Ethical climates

Victor & Cullen (1988) have drawn a two-dimensional theoretical typology of *ethical climates* based on the locus of analysis (individual, local, cosmopolitan) and the ethical criterion (egoism, benevolence, principle). They designed a 36-items "ethical climate questionnaire" in order to test empirically which of the nine resulting climates would prevail in organisations. In practice, five factors (instead of nine climates) came out of their data: climates based on care, law and code, rules, instrumentality, and independence. Their study was replicated in another context by Wimbush et al. (1997), who also found five factors, though slightly different: climates based on care, law and rules, *service*, independence, and instrumentality.

Bouckaert & Vandenhove (1996) have made a large-scale survey in Belgium wherein they made the distinction between four organisational climates: participative, regulative, instrumental, and innovative. The last three are respectively similar to the "law and rules", "instrumental" and "independent" climates described by Victor & Cullen (1988) and Wimbush et al. (1997).

We have drawn upon items used by Bouckaert & Vandenhove (1996) and items developed and tested by Victor & Cullen (1988) and tested again by Wimbush et al. (1997) to develop five scales comprising three-items each.

1. Regulative/deontological ethical climate (rules and codes);
2. Participative ethical climate;
3. Innovative/independent ethical climate;
4. Instrumental ethical climate;
5. Caring ethical climate.

However, factor analysis conducted on our data uncovered only four factors and revealed very high commonalities between the "participative" and the "caring" climate (the former emphasised care for the common good, while the latter emphasised care for the individual). Hence we merged those two scales, ending up with a four-items "caring climate" scale. The details of the four scales are shown below:

<u>Regulative/deontological ethical climate (laws, rules and codes) (α=0.8437)</u>

1. It is very important to follow the company's rules and procedures here.
2. Successful people in this company go by the book.
3. People in this company strictly obey the company policies.

<u>Caring ethical climate (α=0.8518)</u>

1. The most important concern is the good of all the people in the company as a whole.
2. In this company, people look out for each other's good.
3. What is best for each individual is the major consideration in the company.
4. Our major concern is always what is best for the other person.

<u>Innovative/independent ethical climate (α=0.8095)</u>

1. In this company, people are expected to follow their own personal and moral beliefs.
2. Each person in this firm decides for themselves what is right and what is wrong.
3. In this company, people are guided by their own personal ethics.

<u>Instrumental ethical climate (α=0.7841)</u>

1. In this company, people protect their own interests above all else.
2. There is no room for one's personal morals or ethics in this company.
3. People are expected to do anything to further the company's interests, regardless of the consequences.

Collectivism (collective goal orientation)

Common measures of collectivism have been shown to include multiple dimensions: personal independence, importance accorded to competitive success, value attached to working alone, subordination of personal needs to group interests and beliefs about the effects of personal effort on group productivity (Wagner, 1995). Only one of those dimensions is of interest to us, namely the espousal of norms about the subordination of personal needs to group interests, which we call collective goal orientation. We have used as a measure of collective goal orientation the four items grouped by Wagner (1995) under the heading "subordination of personal needs to group interests". The four items are:

1. People should be made aware that if they are going to be part of a group then they are sometimes going to have to do things they don't want to do
2. People who belong to a group should realise that they're not always going to get what they personally want
3. People in a group should realise that they sometimes are going to have to make sacrifices for the sake of the group as a whole
4. People in a group should be willing to make sacrifices for the sake of the group's well-being

Wagner does not provide reliability estimates. Our sample reliability estimate for this scale is 0.8869.

Goal congruence

Three questions were taken from Witt (1992) concerning the convergence of individual and organisational goals (α:0.71).

1. When the company achieve its goals, I am better able to achieve mine.
2. Achieving the company's goals provides satisfaction of individual worker needs.
3. Many workers are not sure how their work fits with the factory's goals. (R)

In our sample, this three-items scale had a reliability of 0.6234. However, by dropping the last item and keeping only the first two items, the reliability increased to 0.8275. In our subsequent analyses, we only considered this two-items scale.

Participation in decision-making (PDM)

We have included three items in this questionnaire, one concerning PDM at each level (operational, social, strategic).

1. I have opportunities to participate in operational decisions.
2. I have opportunities to participate in welfare decisions.
3. I have opportunities to participate in strategic decisions.

Autonomy

This scale comes from Griffin et al. (1980) and includes four items:

1. I have a lot of freedom to do pretty much what I want in my work.
2. I have a lot of control over the pace of my work.
3. I have a lot of opportunity for independent thought and action.
4. I have a lot of overall autonomy.

Griffin et al. mention an α of 0.79 for their scale. In our sample, the reliability was 0.8427, which compares favourably to Griffin's figure. This reliability is comparable to the reliability of alternative scales with which it has a very good convergent validity like e.g. the scale used by Sels et al. (2000), which includes five items.

Job satisfaction

We have used the short job satisfaction scale introduced by Brayfield & Rothe (1951). Its original α is 0.75. In our sample, the reliability was 0.7755. This scale includes four items. We nonetheless dropped the second question because it appeared that the resulting three-items scale had a higher reliability (0.7789).

1. I feel fairly well satisfied with my job.
2. *I am often bored with my job (R).*
3. I find real enjoyment in my work.
4. I feel that I am happier with my job than most other people.

Commitment

Two commitment scales have been adapted from Kumar, Hibbard & Stern (1994) who used those in marketing research. Hence, prior reliability estimates are not available. They were nevertheless preferred to Allen & Meyer's (1990, 1996) similar scales because these are shorter, whereas they appear to have as much informational content. The alpha of the first scale is very high: 0.9061. The alpha of the second scale is also satisfactory: 0.8582.

Affective commitment

1. It is pleasant working for my company; that's why I continue to work here.
2. Even if I could, I wouldn't leave this company because I like to be associated with this company.
3. I want to stay employed in this company because I genuinely enjoy my relationship with this company.

Moral commitment

1. Even if I could earn more money elsewhere, I would feel guilty to leave this company.
2. I feel a sense of duty to continue working for this company.
3. Even if it were to my advantage, I feel it would be dishonourable to leave this company.